

What is Claimed is:

1. A fume hood management system comprising:
2 collection means for collecting data
3 representing an operation state from a plurality of fume
4 hoods; and
5 a server apparatus which comprises arithmetic
6 means for calculating a simultaneous utilization ratio
7 on the basis of the number of simultaneously used hoods
8 and the total number of fume hoods, the number of
9 simultaneously used hoods being obtained from the data
10 collected by said collection means and representing the
11 number of fume hoods that are being used.

2. A system according to claim 1, further
2 comprising a plurality of fume hoods each of which
3 comprises monitor means for monitoring the operation
4 state.

3. A system according to claim 1, wherein the
2 arithmetic means calculates the simultaneous utilization
3 ratio by dividing the number of simultaneously used
4 hoods by the total number of fume hoods.

4. A system according to claim 2, wherein
2 said monitor means comprises operator
3 detection means for detecting a presence of an operator,

4 and
5 said arithmetic means calculates the
6 simultaneous utilization ratio by defining fume hoods
7 whose operator detection means detect no operators and
8 whose sashes are open as fume hoods that are not being
9 used, and sets the calculated simultaneous utilization
10 ratio as an ideal value.

5. A system according to claim 1, wherein
2 said arithmetic means comprises
3 maximum exhaust airflow calculation means for
4 calculating a maximum exhaust airflow as a sum of
5 instantaneous exhaust airflows of said fume hoods on the
6 basis of the collected data, and
7 safety margin calculation means for
8 calculating a safety margin as a difference between the
9 maximum exhaust airflow and a design maximum exhaust
10 airflow which represents a maximum exhaust airflow that
11 can be exahusted by an exhaust system connected to said
12 plurality of fume hoods.

6. A system according to claim 5, wherein said
2 arithmetic means calculates the safety margin by
3 assuming that exhaust airflows of fume hoods whose
4 operator detection means detect no operators and whose
5 sashes are open equal a predetermined minimum exhaust
6 airflow, and sets the safety margin as an ideal value.

7. A system according to claim 1, further
2 comprising a terminal apparatus which is connected to
3 said server apparatus through a communication network
4 and comprises display means for displaying an arithmetic
5 result by said arithmetic means.

8. A system according to claim 1, wherein said
2 server apparatus comprises said data collection
3 apparatus and said arithmetic means.

9. A system according to claim 2, wherein
2 said fume hood comprises
3 an enclosure having a movable sash, and
4 aperture ratio sensor means for detecting an
5 aperture ratio of the sash.